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Commentary

Counseling to Prevent Unintended Pregnancies: Measuring Its Value

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A recent analysis[1,2] has advanced the important work of the U.S. *Preventive Services Task Force*[3] by ranking prevention services for the U.S. population. The rankings have one surprising omission: counseling about pregnancy prevention. As reported by the authors, "Benefits to maternal health from avoided complications of unplanned pregnancies were found to be very small; complete measurement of the efits of preventing unplanned pregnancy would require value judgments at are outside the scope of this project."[1]

As of this writing, the detailed calculations supporting these rankings were not available (www.prevent.org; accessed July 27, 2001). The ranking of services reflected the sum of assigned scores for clinically preventable burden of illness and cost effectiveness. Clinically preventable burden is the product of Quality-Adjusted Life Year (QALY) saved and the effectiveness of the clinical service. QALY saved combines in a single number the years of life gained and improvements in health-related quality of life. Cost effectiveness was calculated as the difference between the costs of prevention and the costs averted, divided by the QALY saved. Hence, the number and timing of deaths prevented, the duration and the degree of morbidity averted, and the financial cost of the clinical service contributed to the ranking.

AN AMERICAN ENDEMIC

The judgment of "very small" benefits may seem odd, given the scope—and impact—of unintended pregnancy in the U.S.[4] An estimated 6.37 million pregnancies in 1994 resulted in 3.95 million live births, 1.43 million induced abortions, and 0.99 million fetal losses.[5] Not counting miscarriages, approximately 49% of all pregnancies in 1994 were unintended; slightly more than half these unwanted or mistimed pregnancies ended in induced abortion.[6] If 4 rates were to prevail, U.S. women would have an average of 1.4 unintended pregnancies by age 45, and over 40% would have at least one induced abortion.[5]

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MORTALITY AND MORBIDITY OF PREGNANCY

Although pregnancy and childbirth have become progressively safer in recent decades, they still carry substantial risks.[7] The Centers for Disease Control and Prevention reported that the risk of pregnancy-related mortality was 10.0 deaths per 100,000 live births in 1990.[8] After accounting for underreporting of these deaths,[9] the true figure is probably closer to 24 deaths per 100,000 live births, with black women facing dramatically higher risks of death.[8]

Although maternal mortality stemming from unplanned pregnancy is inconsequential when compared to deaths from coronary artery disease, the same can be said for chlamydial infection. However, screening for this STD ranked in the top 14 priorities.[1] In 1992, an estimated 220 women in the U.S. died from pelvic inflammatory disease.[10] Even if all of these deaths were attributed to chlamydial infection, this number may be similar to the number of maternal deaths from unintended pregnancies.[8]

While maternal death is uncommon, morbidity is not. The National Hospital Discharge Survey revealed that from 1986 to 1987, about 22% of all pregnant women were hospitalized at least once during pregnancy for a complication unrelated to delivery.[11] In addition, an unmeasured, but substantial, proportion of women receive treatment for delivery complications, and about 1% were re-admitted to hospital for delivery complications. In contrast to angina or congestive heart failure, obstetric morbidity, except for incontinence, tends to be limited in duration, e.g., chorioamnionitis after cesarean birth. Thus, most obstetric morbidity contributes little to public health impact measured in QALYs.

MISSED PREVENTION OPPORTUNITIES

The authors[1,2] identified the services among 14 leading priorities that are provided nationally to 50% or less of their target population. These services represent missed opportunities for prevention, deserving particular attention from policymakers. Family planning counseling would warrant focus as a low-delivery preventive service, since only 36% of family physicians and pediatricians, 53% of nurse practitioners and 65% of obstetricians/gynecologists routinely provide counseling services.[12]

HOW—AND WHAT—TO MEASURE?

Quantifying the benefits of family planning counseling is complicated by the range of health, economic, and social consequences of unintended pregnancy. For example, unintended pregnancies account for a disproportionate amount of poor pregnancy outcomes, including low birthweight, prematurity, and intrauterine growth retardation.[13,14] Women with unintended pregnancies lose out on the opportunity for preconceptional counseling and, perhaps as a result, have higher rates of risky maternal behaviors, such as smoking and drinking during pregnancy, and lower rates of adequate prenatal care.[15] Furthermore, unintended pregnancies can intensify economic insecurity and marital discord, and they can disrupt or destroy educational or career plans. Adolescent pregnancies—85% of which are unintended—that result in births are linked to decreased social and economic well-being for the mother as well as for her offspring.[15]

While the human costs of unintended pregnancy cannot be quantified, the direct medical costs associated with unintended pregnancy can be estimated.

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Unintended pregnancies that result in term births had an estimated cost ranging from $3,623 per birth in a public payer model to $8,619 per birth in a managed care setting in 1991.[16] Hospital stays during pregnancy unrelated to delivery translate into more than 2 million hospital days at a cost of more than a billion dollars annually.[11] The national induced abortion rate of 25.9 abortions per 1,000 women of reproductive years[17] cost an average of $416 per abortion in 1991 in a managed care setting.[16] Unintended pregnancies place huge demands on Medicaid, Aid to Families with Dependent Children (AFDC), the Special Supplemental Program for Women, Infants and Children (WIC), and other social programs. Studies have consistently shown that because pregnancy and its complications are so expensive, all methods of contraception are highly cost-effective when compared with nonuse.[16,18,19]

FAMILY PLANNING AND HEALTH

Little agreement exists on how to measure the overall health benefits of family planning.[20] As the authors noted, complete measurement of the benefits would be beyond the project's scope.[1] While quantifying the impact of family planning may be difficult, its benefits are clear and incontrovertible. Preventing unintended pregnancy saves lives,[8] avoids suffering,[11] and yields extraordinary economic benefits.[21] In 1990, every public dollar spent on family planning saved $4.40 in health and social costs.[22]

According to the World Health Organization, health is "a state of complete physical, mental and social well being and not merely the absence of disease or infirmity."[23] The evaluation methods used in this ranking[1,2] do not reflect this definition. Personal hardships from an unwanted or mistimed pregnancy count nothing toward a QALY. Truncated education and abandoned careers are not measured. Generations of poverty and lost opportunities are missed in this tally. The emotional toll from facing a decision about abortion cannot be captured. Sexual fulfillment and marital happiness are not considered. That counseling to prevent unintended pregnancy does not rank alongside chlamydia screening as a national health priority[1,2] speaks more to the limitations of current health policy evaluation tools than to the limitations of family planning.[15]

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